

Name: _____ Date: _____ Per: _____

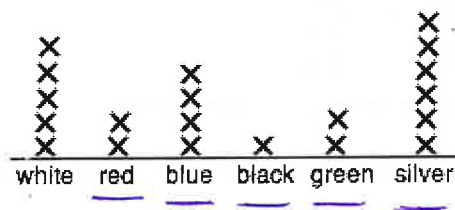
Math 7 Unit 1 Study Guide

Directions: Answer each question completely. Show ALL work to defend your answers.

1. There are 12 green, 3 white, 10 purple and 5 blue gumballs in the gumball machine. *30 total*

- a. What is the probability of getting a blue gumball? $\frac{5}{30}$
- b. What is the probability of getting a red gumball? $\frac{0}{30}$
- c. What is the probability that she will get a white or green gumball? $\frac{15}{30}$
- d. If you are going to reach into the bag and pull out a gumball at random, what color are you most likely to get? Explain. *Green because there is more of this color than any other color.*

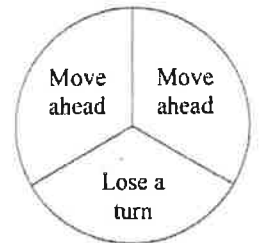
2. Monica made the following line plot for the first 20 cars that drove past her school.



Based on this data,

- a. what is the probability that the next car will be silver? Why? $\frac{6}{20}$
there are 6 silver X's out of 20 total
- b. what is the probability that the next car will NOT be white? Why? $\frac{15}{20}$
we count all of the X's that are not white

3. Marcia just bought a game that came with the spinner at right. On each turn, the player rolls a die and then spins the spinner. The spinner determines if the player actually gets to move.



- a. What is the most likely outcome with this spinner? Why? *move ahead because it fills the most space in the spinner*
- b. What is the probability of moving ahead? Explain. $\frac{2}{3}$
because 2 of the 3 is labeled move ahead

4. Calculate.

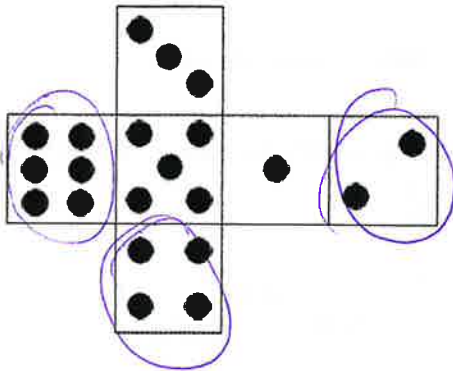
a. $\frac{15}{20} + \frac{8}{20} = \frac{23}{20} = 1\frac{3}{20}$

b. $\frac{9}{18} - \frac{4}{18} = \frac{5}{18}$

c. $\frac{10}{20} - \frac{3}{20} = \frac{7}{20}$

d. $\frac{4}{9} + \frac{5}{9} = 1\frac{1}{9}$

5. The shape below shows an unfolded cube.



a. If the cube is folded up and rolled, what are all the possible outcomes? Are they all equally likely? Explain.

1, 2, 3, 4, 5, 6 these are equally likely because there is one of each number

b. What is the probability of getting an even number?

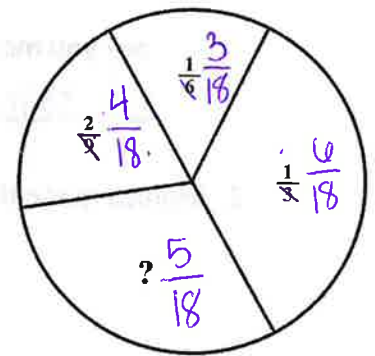
$\frac{3}{6} = \frac{1}{2}$

c. What is the probability of not getting a 4?

$\frac{5}{6}$

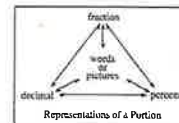
6. The spinner to the right is incomplete. If the numbers in the sections of the spinner represent the probabilities of spinning each section, what fraction is missing in the spinner? $\frac{5}{18}$

$\frac{4}{18} + \frac{3}{18} + \frac{1}{18} = \frac{13}{18}$



7. Below is a sample of the portions web. Each part below

represents one part of the web. For each one, give the other three parts to complete the web.



Fraction	Decimal	Percent	Words/ Picture
$\frac{23}{100}$	0.23 <small>↖ 100</small>	23% <small>↖</small>	twenty three hundredths
$\frac{2}{5}$	0.40 <small>↖</small>	40%	
$\frac{3}{10}$	0.3	30%	
$\frac{38}{100}$	0.38 <small>↖ 100</small>	38%	thirty eight hundredths